REMARKS

[0001] Claims 1-16 were examined and remain pending. Claims 1-16 stand rejected. Claims 1, 3, 6, 10, and 14 are currently amended. Claim 8 has been cancelled. Claims 1-2, 5-7, 10, and 14-16 stand rejected under 35 U.S.C. § 102(b) as being anticipated by the article, "A Machine Learning Approach to Web Mining" by Esposito et al. (hereinafter "Esposito"). Claims 3-4, 8, and 11-12 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Esposito in view of U.S. Patent 7,043,492 to Neal et al. (hereafter "Neal). Accordingly, Applicant traverses these rejections in view the current amendments and the aforementioned interview with the Examiner.

[0002] Applicants would like to thank the Examiners for the telephone interview held 26 February 2007. Participants in the interview included Examiner Charles Adam, Examiner Tami Trong, Attorney David J. McKenzie (RN: 46,919), and Technical Writer Tyler Nield. In the interview, Claim 1 was discussed in view of the APA and U.S. Patent No. 6,314,425 to Serbinis. Applicant's representatives explained the invention and prior art of record. The Examiner suggested that the phrase "frequency of appearance" could be interpreted very broadly and suggested using a phrase such as "number of occurrences" or "count of occurrences." Applicant's representatives have incorporated this amendment into the amendments included herewith.

RESPONSE TO CLAIM REJECTIONS UNDER 35 U.S.C. § 102(b)

[0003] Claims 1-2, 5-7, 10, and 14-16 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Esposito. Applicants submit that the enclosed amendments obviate the rejections under 35 U.S.C. § 102(b).

[0004] The amended independent Claims 1, 6, 10, and 14 clarify the differences between the art as taught in Esposito and the present invention. Specifically, the amendments clarify that the present invention determines an unnecessary word for a category on the basis of the **number of occurrences** of a given word **within** at least **one other category**, as opposed to Esposito which teaches determining an unnecessary word based on the number of **other categories in which** the given word appears. Esposito determines unnecessary words by searching for a single occurrence of the word in the other categories. In contrast, we claim determining unnecessary words by searching and counting the total number of occurrences of a word within at least one other category.

[0005] As used in Esposito, CF(t) (category frequency) is defined as the number of class dictionaries (or categories) in which a given word occurs. See p. 193, paragraph 3. Therefore, the

prioritization of a word in Esposito only takes into account the number of **categories** in which a word appears, but does **not** take into account the **number of times** a word occurs **within those categories**. The present invention does take into account **the number of occurrences** of a given word within at least one of the other categories, which leads to a more accurate and precise document sorting result.

[0006] Thus, the category frequency disclosed in Esposito, can be distinguished from the "number of occurrences of a given word within at least one other category" as recited in amended Claim 1. This distinction between the two inventions leads to substantially different results and makes the present invention patentably distinguishable from Esposito. Therefore, Applicant asserts that independent Claims 1, 6, 10, and 14 are in condition for prompt allowance. Furthermore, Applicant submits that Claims 2-5, 7-9, 11-13, and 15-16 are also allowable as depending from allowable independent Claims 1, 6, 10, and 14.

[0007] With regard to Claim 6, Applicants note that Claim 6 has been further amended to include substantially the same limitation as recited in Claim 8. Thus, Claim 6 now includes the element "wherein said unnecessary word elimination unit extracts a word belonging to a given category and eliminates the word as an unnecessary word from said table in response to the word having a greater number of occurrences in another category than is allowed by a given standard." The Final Office Action agrees that this element is not disclosed in Esposito but avers that it is anticipated by Esposito in view of Neal. Applicant respectfully disagrees, as is discussed below with regard to Claim 3 which claims substantially the same subject matter. See p. 8, para. 1. This amendment to combine Claim 8 with Claim 6 further places Claim 6 in condition for prompt allowance.

RESPONSE TO CLAIM REJECTIONS UNDER 35 U.S.C. § 103(a)

[0008] Claims 3-4, 8-9, and 11-12 stand rejected under 35 U.S.C. § 103(a). In particular, Claims 3-4, 8, and 11-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Esposito in view of Neal. Claim 9 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Esposito in view of Grasso. Applicants respectfully submit that in view of the present amendments, Claims 3-4, 8-9, and 11-12 are patentable over the cited references as depending from allowable Independent Claims 1, 6, 10, and 14. However, arguendo, Applicants submit the following arguments in support of the withdrawal of the § 103 rejections.

[0009] Specifically, with regard to Claim 3 (and amended Claim 6 mentioned above), the Final Office Action agrees that "Esposito does not teach wherein said unnecessary word determination means

extracts a word belonging to a given category and determines it to be an unnecessary word in response to the word appearing more frequently in another category than is allowed by a given standard." See page 7, para. 2. The Final Office Action asserts that Neal teaches this element in Col. 8, lines 56-65. Applicant respectfully submits that Neal does not teach the listed element.

[0010] Col. 8, lines 56-65 of Neal teach adding a word to a stop list "if 1) it has a particular length of characters, 2) the word is used to describe at least x percent of items in a category and 3) the word is used to describe at least x percent of the items in at least y percent of all the categories." However, Neal does not teach determining an unnecessary word in response to the word **having a greater number of occurrences** in another category than is allowed by a given standard. A percentage of items (documents) described by a word is not the equivalent of the frequency of the word within a category.

[0011] For example, suppose each of three items within a category contain 10,000 occurrences of the same word and seven other items have no occurrences of the word. In Neal, if the number of items in the category is ten, the percentage of items which include the word is 30%. However, the actual number of word occurrences is 30,000. This number is unrelated to the percentage of items within a category which include at least one occurrence of the word. Because our claimed invention counts the number of occurrences within the category regardless of subgroupings, such as item, our claimed invention returns an occurrence count of 30,000 words which provides more information about the importance of the word than does a mere percentage.[1] Consequently, our claimed invention provides more detail and more information than Neal. This distinction between the two inventions leads to substantially different results and makes the present invention patentably distinguishable from Esposito in view of Neal.

[0012] Furthermore, Applicants note that currently amended Claim 3 recites "appearing more frequently" to "having a greater number of occurrences." The amendment makes clear the present invention's use of a number of occurrences of a word as opposed using a percentage of documents within a category that contain the word as is disclosed in Neal.

[0013] Because Esposito in view of Neal fails to teach each of the elements of Claim 3, Applicant respectfully submits that Claim 3 is in condition for prompt allowance. Similar arguments

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1 In one embodiment, the present invention returns an average number of occurrences of the word per document within a category. This is simply a function of the total number of occurrences of a word within that category, and is also unrelated to a "percentage" of documents within a category that include the word.

apply to dependent Claims 4, 9, and 11-12, thus Applicants respectfully submit that these Claims are also in condition for prompt allowance.

CONCLUSION

[0014] As a result of the presented amendments and remarks, Applicants assert that Claims 1-7 and 9-16 are patentable and in condition for prompt allowance. Should additional information be required regarding the amendment or traversal of the rejections of the independent and dependent claims enumerated above, the Examiner is respectfully asked to notify Applicant of such need. If any impediments to the prompt allowance of the claims can be resolved by a telephone conversation, the Examiner is respectfully requested to contact the undersigned.

Respectfully submitted,

Date: March 20, 2007   _/David J. McKenzie/_____

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